

# Waipawa River



## Key Values

Cultural

Recreation (angling, boating)

Ecology (wildlife)

**Table 1: List of documents reviewed**

Year	Name	Author
1979	64 New Zealand Rivers	Egarr, Egarr & Mackay
1988	Wildlife and Wildlife Habitat of Hawke's Bay Rivers	G.R. Parrish
1981	New Zealand Recreational River Survey	G & J Egarr
1984	The Relative Value of Hawke's Bay Rivers to New Zealand Anglers	Fisheries Research Division - N.Z. Ministry of Agriculture and Fisheries
2004	Potential Water Bodies of National Importance	Ministry for the Environment
2010	Recreational Use of Hawke's Bay Rivers – Results of the Recreational Usage Survey 2010	Hawke's Bay Regional Council
2011	Tukituki Catchment Terrestrial Ecology Characterisation	MWH Global
2012	River Values Assessment System (RiVAS)	Lindis Consulting
2012	Tukituki River Catchment Cultural Values and Uses	Te Taiwhenua O Tamatea & Te Taiwhenua O Heretaunga
2014	Jet Boating NZ – Rivers information	Jet Boating New Zealand
2016	Heretaunga Tamatea deed of settlement + documents schedule	Heretaunga Tamatea and the Crown
2016	Tukituki River Catchment – State and Trends of River Water Quality and Ecology 2004 - 2013	Hawke's Bay Regional Council
2018	Waipawa River Trout and Fly Fishing	NZ fishing website
2018	Cultural Values Table	Hawke's Bay Regional Council
2018	Land Air Water Aotearoa (LAWA)	Hawke's Bay Regional Council

## Discussion

### Purpose of report

1. The purpose of this report is to assist the RPC members to determine whether any of the values of the Waipawa River are outstanding for the purposes of the National Policy Statement for Freshwater Management (NPSFM).
2. This report presents the summarised findings of the values attributed to the Waipawa River in those documents referred to in Table 1, above. In accordance with decisions made by the RPC in June 2017, economic and consumptive use values have not been discussed in detail in this report.

### Overview

3. The Waipawa River rises in the Ruahine Ranges on the slopes of Te Atua Mahuru flowing southeast until it empties into the Tukituki River, southeast of the Waipawa township. The river is a vast gravel braided river system which supplies much of the water for surrounding rural needs. The river is highly connected to the Ruataniwha aquifer.
4. The Waipawa River starts its journey as a very small steep stream at the bottom of the Ruahine Ranges, becoming a wide braided river as it crosses the Ruataniwha Plains. The river's flow substantially increases after it collects water from the Makaroro and Mangaonuku Rivers to become one of the two largest rivers to cross the Ruataniwha Plains. The river is flanked in parts by stop banks to contain floodwaters.
5. In summer, potentially toxic cyanobacteria mats can grow on the Waipawa River becoming a health risk for people and animals.

### Location

6. The Waipawa River is located in Central Hawke's Bay and is a major tributary of the Tukituki River. The location and extent of the Waipawa River can be seen in Figures 1 and 2, below.



Figure 1: Location of Waipawa River extent

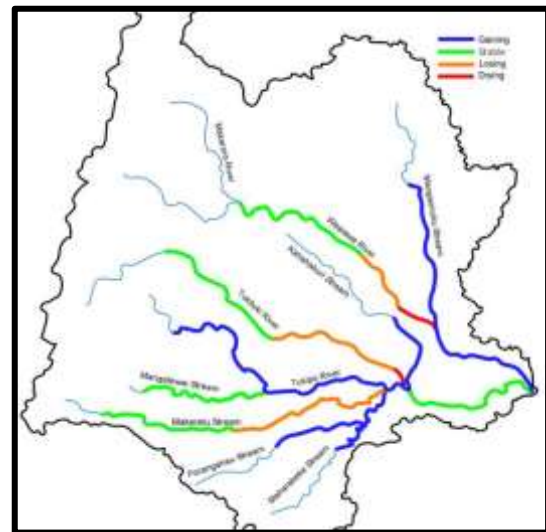


Figure 2: Rivers and Streams - Ruataniwha Plains

### Cultural values

7. The Waipawa River is a significant waterway for Heretaunga Tamatea. It lies at the heart of their spiritual and physical wellbeing. The river is significant for its resources and the inland access it provides, particularly known for its tuna, pātiki, fresh water koura, water cress and inanga. In early times, a trading post was set up on the river, with boats travelling up and down from the Tukituki River mouth.
8. A narrative exists on the way in which the Waipawa River came into existence. A large lake was located in what is now the Ruataniwha Plains, which was home to two taniwha. On one occasion a boy fell into the lake and the two taniwha fought over their prey. The resulting destruction on the landscape created breaks in the

hills through which the lake drained away. One of the channels through which the lake drained was the Waipawa River.

9. A number of archaeological sites indicating the presence of pā and kāinga have been recorded along Pouterere Road, and near the Waipawa township. Other pā have been recorded upriver which show the strategic significance of the Waipawa River. Near the headwaters was Motu-o-Puku pā which belonged to the descendants of Te Rangitekahutia and the descendants of Te Upokoiri.
10. Attachment 1 contains a more detailed explanation of the cultural values associated with the Waipawa River.

### *Recreation values*

11. The main recreational activities which take place on the Waipawa River are swimming, angling and boating with bird watching occurring to a lesser degree. During summer, cyanobacteria can grow, and parts of the river can dry up, which severely impacts on the recreational values of the river.
12. The recreational activities which take place on the Waipawa River are discussed in more detail below.

### **Angling**

13. Both rainbow and brown trout are present in the Waipawa River, which on average weigh around 1.5 kg. The NZ fishing website describes the Waipawa River as a river which fishes well throughout the year due to its water remaining much cooler than other rivers in this area.
14. In 1984, a report by the Fisheries Research Division identified the Waipawa River as a 'recreational' fisheries of local importance, notable for its high catch rate. The report states that while the river is not heavily fished, it is thought to be of exceptional value by the anglers who do fish them.
15. In 2012, parts of the Waipawa River were identified as nationally significant in the Hawke's Bay RiVAS assessments for salmonid angling.

### **Boating**

16. The Waipawa River provides a 30 km stretch of easy jet boating water which is suitable for beginners and family boating. During high flows the river is boatable up to the Makaroro confluence.
17. The Waipawa River is canoeable from around 3 km above the Makaroro confluence. The water is described in the Recreational River Survey as having easy Grade 1 canoeing water, with the most popular trip being from the Makaroro confluence down to the State Highway 50 Bridge. The Waipawa River is considered to be too shallow and slow moving for rafts.
18. In 1981, The Recreational River Survey assigned the recreational and scenic values of the Waipawa River an 'intermediate<sup>1</sup>' and 'picturesque<sup>2</sup>' rating, respectively.
19. In 2014, Jet boating New Zealand classified the Waipawa River as an easy 'Class 1' jetboating trip on a shingle, braided river, suitable for family boating.
20. The Waipawa River did not feature in the 2012 RiVAS assessment undertaken in Hawke's Bay for whitewater kayaking.

### *Ecology values*

21. The Waipawa River has a braided river habitat type which is a rare habitat type internationally that generally has high ecological values.
22. During warm summer months when water flows are low, cyanobacteria mats can build up in parts of the Waipawa River which can have a detrimental effect on a rivers ecology.
23. In 2004, the Waipawa River was identified as a Potential Water Body of National Importance for aquatic biodiversity values, by the Ministry for the Environment.

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<sup>1</sup> Recreational values graded on a five point scale: insignificant, low, intermediate, high, exceptional

<sup>2</sup> Scenic values graded on a six point scale: dull, uninspiring, moderate, picturesque, impressive, exceptional.

## Fisheries

- The Waipawa River did not specifically feature in the 2012 RiVAS assessment undertaken in Hawke's Bay for native fish. The river was instead considered part of the Greater Tukituki River catchment, which determined the Tukituki catchment was nationally significant for native fish. Notwithstanding, due to its inland location, the Waipawa River is likely to have significantly less native fish diversity than the Tukituki River.
- The river is highly valued for angling which means the river contains important trout fisheries which support this recreational activity. The trout populations in the catchment are self-sustaining.

## Wildlife

- The Waipawa River is recognised as supporting a high number of wetland birds. In 1984 and again in 1988, over a 140 km of The Tukituki and Waipawa riverbeds were surveyed for wildlife. During these surveys, the Tukituki and Waipawa River's held the greatest numbers of banded dotterel in the region.
- The counts of birds were recorded on the Waipawa River during the 1984 and 1988 surveys and are detailed in Table 2, below:

**Table 2 Wildlife Survey – Waipawa River (1984 and 1988)**

Bird name	1984	1988
banded dotterel	321	397
black-fronted dotterel	60	61
pieb stilt	170	241
paradise shelduck	16	18

- In 1992, the Department of Conservation designated the Waipawa River bed from the Makaroro confluence a Recommended Area for Protection (RAP) as part of its Protected Natural Areas Programme (PNAP) surveys<sup>3</sup>, due to *"its valuable riverbed habitat supporting high numbers of waders and wetland birds"*.
- In 2012, the Waipawa River was identified as regionally significant Hawke's Bay RiVAS assessments for native birdlife.

## Macroinvertebrates

- Hawke's Bay Regional Council regularly monitors the freshwater ecology of the Waipawa River at State Highway 50. The macroinvertebrate measures in Table 3 are an indicator of stream health where generally, the higher the Macroinvertebrate Community Index, taxa richness and percent EPT, the better the health of the stream.
- The monitoring results show the Waipawa River at State Highway 50 has median MCI score indicative of "good" water quality with mild pollution.

**Table 3: Macroinvertebrate sampling results – Waipawa River (median 2011 - 2016)**

Monitoring site	Macroinvertebrate Community Index (MCI)	Classification	Taxonomic richness	Percent EPT <sup>4</sup> richness
Waipawa River (SH50)	MCI between 100 and 119	GOOD	15	57.1.1%

Note: Regional Councils use a classification from Stark & Maxted (2007) for MCI sampling, assigning a rating of either excellent, good, fair or poor for ecological health and/or habitat condition.

## Landscape / scenic values

- The Waipawa River begins its journey as a very small steep stream at the bottom of the Ruahine Ranges. It passes through the Ruahine Forest Park where on reaching the Ruataniwha Plains the river flows over a wide

<sup>3</sup> The full RAP area extends from the confluence of the Makaroro and Waipawa Rivers, and the Tukituki River near the top of Tukituki Road, right down to the river mouth.

<sup>4</sup> EPT stands for Ephemeroptera (mayfly), Plecoptera (stonefly) and Trichoptera (caddisfly), and are macroinvertebrates which are sensitive to water pollution.

shingle river bed, boarded by scrub covered banks. It increases in flow after it collects water from the Makaroro and Mangaonuku Rivers, becoming a large braided river system as it flows across the Ruataniwha Plains.

33. The catchment headwaters have predominantly native vegetation, dominated by native forest, with native shrubland and tussock associations above the tree line. The majority of the catchment is largely deforested, with the exception of some areas of exotic forestry in the upper parts of the catchment.
34. In 1979, the Waipawa River was given an 'interesting'<sup>5</sup> scenic rating in "64 New Zealand Rivers" which contains an indepth scenic evaluation of sixty four of New Zealand's major rivers.
35. In 1981, The New Zealand Recreational River Survey assigned the scenic values of the Waipawa River a 'picturesque'<sup>6</sup> rating.

#### **Naturalness/intactness of waterbody**

36. Long lengths of the Waipawa River have been converted from a braided to a meandering river course by river control works. This has caused shingle aggradation in some areas resulting in the riverbed being higher than the surrounding landscape in some parts.
37. In 2012, the Waipawa River was identified as regionally significant in the Hawke's Bay RiVAS assessments for natural character. The RiVAS assessment did not discuss the different sections of the river.

#### **Water Quality**

38. Hawke's Bay Regional Council regularly monitors the water quality of the Waipawa River at State Highway 50. No sampling occurs in the upper reaches. The 2016 results are detailed in Table 4 below.

**Table 4: Water quality – Waipawa River (2016)**

Monitoring site	Water clarity	Nitrogen	Phosphorus	Microbiological Indicator ( <i>E. coli</i> )
Waipawa River (SH50)	Turbidity = 5.61 NTU; Black disk =0.83 metres.  Both in the worst 50% of like sites within New Zealand.	NOF BAND A Total Nitrogen = 0.1375 g/m <sup>3</sup> ; Total Oxidised Nitrogen = 0.073 g/m <sup>3</sup> (Annual median) and 0.2885 g/m <sup>3</sup> (95 <sup>th</sup> percentile); Ammoniacal Nitrogen = 0.0034 g/m <sup>3</sup> (Annual median), 0.0131 g.m <sup>3</sup> (annual maximum).  All are within the best 25% of sites within New Zealand.	Dissolved Reactive Phosphorus = 0.005 g/m <sup>3</sup> , Total Phosphorus =0.008 g/m <sup>3</sup> .  Both are within the best 25% of 'like' sites within New Zealand.	NOF Band A E. coli = 39 n/100ml (annual median)  In the best 50% of like sites in New Zealand

Note 1: NOF BAND A for E.coli = water suitable for designed use with les 1% risk of infection from contact with water during activities with occasional immersion (such as wading and boating). Band A is suitable for swimming.

Note 2: NOF BAND A for Nitrogen = unlikely to be effects even on sensitive species.

#### **Other**

39. In early days, a trading post was set up on the river and barges would travel up through the Tukituki River, and partly up the Waipawa River. Punt and canoe river transport played a part in the early years but by 1867 a coach track to Napier was in existence and river transport was no longer required.

<sup>5</sup> Scenic values graded on a five point scale: dull, ordinary, interesting, impressive, exceptional.

<sup>6</sup> Scenic values graded on a six point scale: dull, uninspiring, moderate, picturesque, impressive, exceptional.

### Values Summary

Overarching Value	Sub-value	Description	Outstanding Yes/no	Comments
Cultural	TBC	TBC	TBC	TBC
Recreational	TBC	TBC	TBC	TBC
Ecological	TBC	TBC	TBC	TBC
Landscape	TBC	TBC	TBC	TBC
Natural Character	TBC	TBC	TBC	TBC









## 8. Statutory Acknowledgement Area of Interest



Figure 3 Heretaunga Tamatea Area of Interest

## 9. Resource Management Plans

The following tables list any relevant resource management plans developed by the regional council or territorial authorities. The tables include any specific provisions that apply to the Waipawa River. They do not include all of the general policies that may apply. Water quality and water quantity provisions have been included as it is recognised that these aspects can significantly impact on cultural values.

### Iwi and Hap Resource Management Plans

Kahungunu ki Uta, Kahungunu ki Mārae & Freshwater Fisheries Strategic Plan

Mana Ake An Expression of Kaitiakitanga, Te Taiwhenua o Heretaunga

### Regional Resource Management Plan

Section 5.9 (Tukituki River Catchment) various objectives, policies, limits and targets apply to water quantity and water Catchments Sensitive to Animal Effluent Discharges (Schedule 6b)

Minimum Flow Rivers (Schedule 7)

Rivers Considered for Riparian Protection (Schedule 8)

Schedule 14 Tukituki River Catchments

Schedule 15 Tukituki Plan Change Water Management Zones

### District Plan

Appendix C Schedule of sites of cultural significance to Te Taiwhenua contains archaeological sites

Appendix H Schedule of identified community facilities includes several facilities for information purposes only (no rules).

## Attachment 2: Photographs – Waipawa River



Waipawa River at State Highway 50



Waipawa River gorge